

*Presented from the
13 May 17
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REMARKS

ON VARIOUS

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AGRICULTURAL REPORTS.

TRANSMITTED TO

The Honourable Board of Agriculture,

IN THE YEAR 1794.

By WILLIAM FOX, *K*
ATTORNEY AT LAW.

LONDON:

PRINTED FOR THE AUTHOR.

SOLD BY G. NICOL, BOOKSELLER TO HIS MAJESTY, PALL-MALL; J. DEBRET; PICCADILLY; B. WHITE, FLEET-STREET; J. JOHNSON, ST. PAUL'S CHURCH-YARD; AND J. SCOTT, KING-STREET, WESTMINSTER. 1796.

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R E M A R K S

ON 7 APR 1952

AGRICULTURAL REPORTS.

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WILLIAM FOX

ATTORNEY AT LAW

NOV 10 1903

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P R E F A C E.

SURROUNDED by one of the most luxuriant counties in England,* and associating frequently with that respectable tenantry, to whose industry and judgment it is indebted for increased fertility; the author could not but be enlightened, both by his observations on the general face of nature, and his conversations with those who were appointed to superintend her operations.—With these advantages he sat down to peruse various agricultural reports that he had the honour to receive from the Board of Agriculture, and as his remarks were requested upon them, he endeavoured as much as in him lay, to make his local intelligence generally conspire to promote the laudable objects of this Honourable Institution.—His performance having been favoured with the approbation and thanks of that Board, and believing that it will be satisfactory to many of his friends to receive copies of it, he is influenced through their kindness, to submit it to the public.

* Gloucestershire.

No. 4, Great Smith Street,
Westminster.

16th July, 1796.

F R E E A C T

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* Gloucestershire.

No. 4. Great Smith Street,
 Westminster.

10th July, 1796.

REMARKS

ON VARIOUS

AGRICULTURAL REPORTS.

BEDFORD.

"Different soils in the same parishes."

IT is submitted that where this is the case, the soils themselves form an invaluable manure for each other;—thus the clayey soil is unbound, and dried by its union with the sandy soil. The loamy land is strengthened by the addition of clay, and invigorated by the chalky soil. — Again, the gravelly soil is united and fructified by the addition of loam and clayey soils.

ERROR IN RIDGING.

"The tops of the ridges for six or eight feet across are the only profitable parts of the soil, the land next to and the furrows form so many pools, ditches, and reservoirs of water."

The defect seems to originate in the segment of the circle not being formed sufficiently elliptical. The ridge being formed as follows  instead of being formed thus .

ROLLING LAND AT SPRING AND AUTUMN.

The pulverization of the soil, it is presumed, contributes much to its fertility.

ROTATION OF CROPS NOT PURSUED SYSTEMATICALLY.

It is to the want of system sanctioned by general approbation that errors in agriculture are so numerous, and the authors of them so prejudiced to their own opinions; but happily for the united kingdom, the resplendent radii of intelligence, that will concentrate in the Honourable Board of Agriculture, by the prudent measures they have adopted, must enlighten every district within its influence, and consign to darkness all ill-founded prejudices.

TURNIPS.

TURNIPS.

It is submitted that if turnips were drilled, and each row guarded by a double line of lime, they would be effectually preserved from the ravages of the grub and fly.

RENTS.

" Reserving the interest of his money at least, and a fair gain for his skill and personal exertion."

The three rents, according to the ancient rule, seem to be fairly the farmer's due, the one to the landlord, another to defray the expences of husbandry, and the third solely to the occupier. Few farms, I apprehend, even at this time, with good management, will fail to produce three rents.

CATTLE.

" Due width and symmetry of body carry with it inherent aptitude to fatness."

The crumpled horn, the rich dewlap, extent from hip to hip, are points of beauty that are generally accompanied by an inherent aptitude to thrive with speed.

TIMBER.

TIMBER.

The prejudicial practice of lopping and topping timber should be entirely exploded. It robs the tree of its beauty, destroys its power to shade cattle, and retards its growth in the girth. If fire bote, fence bote, or cart bote be wanted, let a decaying tree or trees be cut, it being better that one tree or more should be wholly removed, than that all should be defaced and checked in their growth.

The young stores or saplings ought in every plantation of timber to be regarded with more attention than they receive ; one of the strongest should be nurtured very carefully near to every tree approaching to timber, so that upon the felling of the latter, the former may be in the certain line to similar perfection ; thereby the return from woodland would be more frequent, and a plan be made permanent for a successive supply.

PARING AND BURNING.

" That soil which is already too thin or shallow requires not to be subtilized with fire."

The nutritious salts produced by this process surely contribute considerably to fertilize the soil, and though this practice may reduce the quantity of the soil, yet it so fructifies the land that this loss is unworthy of consideration.

OXEN.

OXEN.

It should seem that the introduction of horned teams, in the counties hitherto unused to them, would lessen the expences incident to cultivation by the present practice, and prove a national benefit, by reducing the price of beef.

FINES ARBITRARY.

It is submitted that if corporate bodies were impowered by act of parliament to make their property freehold, great good would arise to the community, and a vast increase of annual income to themselves. For instance, if an estate now granted by them for a term of thirty years, renewable at the expiration of every ten years at a certain fine of one year's rent (supposing ten pounds) was converted into freehold, it would certainly bring at least ten years purchase, the interest of which would at five per cent. be five pounds per annum. The improvements that in this case would be continually taking place, would enliven every branch of business within the various cities of the united kingdom, and add much to the convenience and beauty of all.

ROADS.

Cleanfing continually the ditches on each side of the road, and forming hollow drains across the road, to communicate with the ditches at stated spaces, would greatly profit the road, and save expence, work, and materials.

LEASES.

LEASES.

Running leases for twenty-one years, mutually dissolvable at the expiration of seven, or fourteen, seem the most eligible. You read your tenants habits of farming and principles in time to prevent much loss if they are not good.

FORESTS.

The present system of forest economy seems to be very imperfect, more owing to a want of specific line of duty being chalked out for the verderors, than through inattention, or inability, on their parts to pursue the best interests to which these valuable tracts might be made subservient. If they are not to be disafforested, it is submitted that order in felling and planting should immediately be substituted. These tracts, that now bear the semblance of wildernesses rather than forests, would with such observance of order ornament and essentially profit the state.

BEES.

“ The advantages agriculture would derive from the increase of this industrious animal are not few.”

This increase cannot extensively take place until the cruel and impolitic practice is exploded of burning these harmless contributors to produce

tors to our riches before we occupy their possessions. Much praise is due to Mr. WILDMAN for his humane invention of a double beehive, whereby these patterns of order and industry are provided with new space to deposit their treasure immediately as their first produce is removed. It is hoped that the recommendation of the Honourable Board of Agriculture will bring these hives into general use.

COTTAGES.

"There is a scarcity of comfortable cottages for the poor."

It is the duty of all proprietors of estates to remedy this evil, alas, too prevalent within our kingdom! Surely he who induces inclemencies of heat, cold, and wet, in securing to us the comforts of life, should not have his health endangered by a roofless shed, that exposes him to the bleak blast, and the nocturnal storm.

EXCHANGE OF COMMON LANDS.

Such an accommodation would meet the hearty concurrence of numerous occupiers of tracts of common land so small as to preclude the proprietors from applying for a bill of inclosure, but nevertheless of consequence enough to make such a measure as the author has proposed an object of anxious desire to them.

LEVELLING

LEVELLING ANT-HILLS.

This process seems most properly done when effected in one season, the ground in such event being only once trampled; in that suggested by the author it is three times trodden. It seems also the proper mode to cut the hills crossways, to turn up the sod, that the collected part forming the hillock may be scattered upon the land, and the sod, whether good or bad, then restored to the base, because if bad it partakes of the native verdure of the field in general, and an alteration in the nature of these particular parts only, would give a motley appearance to the field, inconsistent with good husbandry.

"If the whole business is performed in three years, the land will not be overburthened at any time with too much dead soil."

I do not like the term dead soil, in no case will it apply; for soil, whatever successive crops may have been fructified by it, is still possessed of a vegetative power, suited to some purposes, though inefficient for many.

The soil now under consideration also answers as a manure instead of being burdensome to the land.

IMPROVING

IMPROVING THE SITUATION OF THE LABOURER.

Noting consecutively as I read, I find that in a previous note I have anticipated the author's sentiments. In addition I beg leave to observe, that if a certain number of convenient cottages were erected in every county, and a small plot of land annexed to each, for the purpose of bestowing the absolute freeholds upon such labourers who had for a series of years demeaned themselves uprightly in a faithful course of industry, there would be a constant incitement to diligence and good morals.

This honorary reward given to aged merit, would attach the young husbandman to those principles, and that pursuit, which led the venerable possessor to this public mark of approbation.

 B E R K S.

THE THAMES.

Takes its rise from a field on the right hand side of the road leading from Cirencester to Minchinhampton, in the county of Gloucester, and is distant about three miles from Cirencester. Isis is the proper name of the Thames, but the latter is more commonly used.

FINES FOR RENEWING LEASES.

These fines check improvement, as the increased value of the estate is the rule by which they are graduated, although the expence of improving has been defrayed by the occupiers.

LARGE FARMS.

Much injury is done to the true interests of agriculture by over-large farms. They are rarely sufficiently stocked.—More effort is required upon them from honest industry, than small farms demand, to save hands ; on the latter labour is pleasure, on the former it is too frequently slavery.

TILE.

“Thatch is substituted for Tile.”

Tile should be preferred wherever it can be obtained ; it is more secure against fire, more durable than thatch, and, what is above all, it encourages a manufactory.

LANDLORD AND TENANT.

It is from the strict observance of their mutual interest in all agreements between landlord and tenant that the best improvements are likely to arise, and the happiness of both parties to be promoted.

THE

THE INTRODUCTION OF AMELIORATING CROPS.

This practice gains ground, much to the interest of the farmer and the profit of the state.

BURN BAKING.

If I mistake not the meaning of the author, burn-baking as he calls it, is equivalent to peat ashes, as it reduces the coarse turf to a nitrous powder that is found to fertilize barren lands upon the first appropriation of them to productive purposes.

IMMEDIATE PAYMENT.

Prompt payment facilitates all commercial intercourse, and is a powerful preservative of fidelity and esteem in all ranks of life.

INDUSTRIOUS POOR.

Surely such valuable characters as these in times of indigence and illness should have a certain and sufficient source of relief to which they might apply; instead (as is too common in many parishes) of being obliged to ask aid of a person who farms the poor, and enriches himself by the multiplication of their miseries.

SHEEP.

It is submitted, that if the cleanliness of sheep was more attended to, disease would often be prevented among them, and their wool be rendered finer and more valuable. If they were washed about every fortnight with soap and water for four or five months after they were shorn, the expence and trouble would be amply repaid.

PLANTING IN FENCES.

These trees should be planted some feet within the fence, for if planted in the line of the fence it will (as the roots of the tree spread and the branches grow) be destroyed on each side.

BRECKNOCK.

QUICK FENCE.

"One row will be sufficient."

It will rear a good fence upwards, but the thinness of the lower part will leave interstices that sheep will easily widen, so

as

as to render the fence ineffectual, a double row is submitted to be best, for if the plantation fail in any one part of either line, and not in the other, the fence is still preserved.

DRAINING.

It is submitted, that draining in various directions from the source of the spring to the end of the tract thus stated to retain the water, would with good husbandry abate this evil.

ROOTS OF TIMBER.

The practice reported by Mr. PEARCE, in Berkshire, should be adopted, by giving the roots to the labourers on condition that they plant new sets in a proper manner.

BERKSHIRE Report, p. 55.

LANDLORD AND TENANT.

It is in the interchange of good offices that society secures order, profit, and happiness. This disposition on the part of the tenant, to lend a helping hand to execute the improvements of the landlord, gives mutual energy, and good effect, to their interests.

INDUSTRY.

INDUSTRY.

It is an axiom of the purest wisdom, that indolence produces misery, and honest industry foul-foothing comfort.

BUCKINGHAM.

SOILS.

“ Ungrateful and barren soils when mixed often produce good and plentiful crops.”

It gives pure pleasure to the author of these remarks to find this fact sanctioned by authority acting under the respectable Board of Agriculture, as he conceives that the mixture of soils, may in many instances be the most productive, and least expensive, manure that can be used.

GRASS SEEDS.

To the botanist the utility of the reporter's instructions will be enhanced by the technical propriety with which they are conveyed, and the plain farmer, though he may not be able to select,
and

and name, the several species of grafs here stated; will yet be induced to husband feeds from his best grounds, and thereby, in effect, to fulfil the direction of the reporter.

LACE MANUFACTORY.

There is a moral order and neatness observable in families where this elegant manufacture is pursued, which confirms it to be advantageous, and will, I trust, extend patronage to it in districts where at present it is little known.

LEAVES.

It is submitted, that if the leaves in woods were collected at the conclusion of every fall, two good ends would be effected—the leaves united with the drainage of the yard, would compose a good manure, and the timber and underwood would have more air, heat, and moisture, let in to their roots.

ROT IN SHEEP.

A powerful preventive arises from removing the sheep to highlands so soon as it is perceived that more rain has fallen upon the low lands than they can absorb; and if means could be afforded to fold the sheep under shelter at night, during heavy rains, it is presumed that the ravage of this disease would be much abated.

WASTES.

WASTES.

The very name of these large tracts of land is a reproach to us, and directs us to turn to a provident purpose what has been so long wasted.

TURF.

" Burwell Fen has been greatly injured by the digging of turf."

It is submitted, that this practice might still be even profitably continued, if performed methodically. If the turf was dug out of lines, each meeting the others at right angles, two feet broad and three feet deep, enough turf would be supplied with the additional advantage of draining the several square spaces so bounded by these lines.

FENCES.

It is submitted, that land however thin, that raises grain, will also support a live fence.

INCLOSURES.

" From four to six bushels more produce than gained per acre in open fields."

The superior productive excellence of inclosed land is hereby very satisfactorily shewn.

CHESTER.

CHESTER.

ORCHARDS.

Ought to be cultivated in all counties. In case barley fails, fruits supply a liquor that lessens this loss, and prevents the price of malt from being extravagantly enhanced.

NATURAL GRASSES.

Are increased and improved, very considerably by the manure of soapers ashes.

" Milch cattle in the winter being in a great measure fed with straw, pease and beans are on that account very rarely sown."

When it is found that the *pease hault* is more nourishing to, and liked better by cattle, it is presumed that pease will be cultivated, as each crop properly introduced ameliorates the land.

PIGS.

The yoke put upon this animal to prevent injury to fences, might with a slight addition be made to prevent them from rooting the earth.

D

CORNWALL.

CORNWALL.

SEA SAND.

Would not the introduction of this manure into the hearts of the various counties, whose rivers communicate with the ocean, prove a national benefit?

CANAL.

"A communication between the port of Bristol and St. George's Channel."

A similar idea arose in the author's mind, which he communicated to a gentleman in Devonshire, with this difference only, that the line for the canal should be taken as nearly as possible from Bridgewater to Axminster or Lyme Regis. Much benefit will result no doubt from Sir William Molesworth's proposal to the county of Cornwall, but the junction of the two channels at the place here stated, it is submitted, will prove an object of much more extensive good. An immense circuit, subject to very variable winds, will be saved in the voyage from Bristol to London. The navigation from Ireland to London will be secured from the danger of the western coast of Cornwall, and the commerce between Wales and London will be made much more easy, safe, and expeditious.

CUMBERLAND.

CUMBERLAND.

LIME.

This manure agrees well with rich heavy loamy land. It produces a fermentation favourable to vegetation. It loosens and fines the soil, and corrects its tendency to coldness. The mode however here expressed to be adopted for the usage of this manure, viz. letting it lie in heaps for some time before it is distributed over the land, destroys its virtue, which evaporates.

EXTRA-MANURING.

From chemistry a valuable rule is derived to govern the practice of manuring. Only a certain portion of one power can profitably be absorbed by another—all beyond this power is saturation, which is not only in itself useless, but also prevents the action of the previous proper power.

ROADS.

" Stones not broken small enough."

The surface of the stones thus broken should be covered, either with gravel, or earth, which would when wetted by rains operate

as a kind of cement to the stones, and always preserve a smooth surface. Ditches are too frequently left on each side of the road, instead of which, it is submitted, that if the angular points of the ditches were taken off, so that the ditch might be lost in the road, the road would be better drained, and be rendered more safe to travellers. In case of horses starting ditches are very dangerous.

DORSET.

PLANTING TIMBER.

It is submitted, that it would answer in bleak situations to dig out two, three, or more feet of soil from the circles or squares selected for planting, so that the plants might be upon a base sheltered around by a depth of two, three, or more feet of earth. By the time their tops were level with the common surface of the land, the stamina of the plants, it is suggested, would be sufficient to protect them from the inclemency of the weather.

COALS

COALS FROM WALES COST 32s. PER TON.

Here is a striking proof of the benefit Dorsetshire would derive in the reduction of the price of coal, was the junction of the two channels effected as hereinbefore mentioned.

QUARRIES.

It is submitted, that the lever might be so much more effectually improved for the working of quarries, as to render this employ more easy, safe, and expeditious.

ESSEX.

FALLOWING.

Inaction, is no rule in nature, or art, and experience proves that the successive varied cultivation of land preserves it in superior vigour, with more profit, than is derived from fallowing.

"Wheat after Carraway."

The land that will produce a good crop of wheat, after this course of husbandry, needs no fallow, it is submitted, to invigorate it, if fallowing could produce this effect.

GLOUCESTERSHIRE.

GLOUCESTERSHIRE.

COTSWOLD HILLS.

The cause of the perpetual fertility of the Gloucestershire Cotswold Hills seems to be satisfactorily explained by an admirable general principle laid down in the Gentleman Farmer, p. 309. A soil perpetually fertile must be endowed with a power to retain moisture sufficient for its plants, and at the same time must be of a nature that does not harden by moisture. Calcareous earth promises to answer both ends; it prevents a soil from being hardened by water; and it may probably also invigorate its retentive faculty. A field that got a sufficient dose of clay marle carried above thirty successive rich crops without either dung or fallow.

PLOUGHING.

A shallow mode of ploughing is prejudicial to vegetation, particularly in working the soil under consideration; it contributes to strengthen those strata that this soil is apt to form, and thereby not only prevents the rain from sinking to a due depth, but in times of extreme heat, exposes the corn to be quickly parched up.—Another valuable general principle of the writer before quoted illustrates

illustrates this observation. " Roots extend far where they meet
 " with no resistance, and the growth above the surface corresponds
 " to that below." p. 314.

RIPENING OF CORN.

The difference in its arrival at maturity seems to arise from the varied scites of land in the same district; that lying to the southern is governed by a more genial influence than that exposed to the northward. The varied surface of land also has its influence in this particular, the crops on level, inclined, or hilly ground, generally differing in forwardness.

EXTENT OF FARMS.

A farm ought never to contain a less quantity of land than sufficient for a plough; and there is no medium between that quantity and as much as will give full employment for two.—Less than sufficient for a plough is an evident loss to the tenant, and consequently to the landlord: the servants and cattle must at times be idle for want of work; or what is worse, they will work indolently and make no progress.—A farm that cannot be commanded by one plough and is not sufficient for two, is a still greater loss.—The tenant struggling to make something of every field, does justice to no field, and the farm impoverishes every year.

Gentleman Farmer, p. 247, 248.

STALLS.

STALLS.

The Gloucestershire graziers display much judgment in the fabrication of their stalls for fattening. Every possible attention is paid to cleanliness, convenience, and a free circulation of air.

SHEEP.

Change of pasture contributes much to their improvement. Some notes now before me of early reading, state that the King of Spain's flock of five millions (which was in ordinances of state termed the precious jewel of the crown, and brought annually into the coffers £.375,000 sterling) was wintered in the vales of Manca, Estramadura, and Andalusia, whence in spring it moved northward in detachments of 10,000 sheep, and passed the summer in the hills and elevated plains of Leon, Old Castile, Cuenca, and Arragon. An allowance of salt where needful was found for the royal flock in those northern territorial jurisdictions. The same source informs me that in Lincolnshire tithe fleeces are 8lb.—In Leicestershire, where wedders are raised to 37lb. the quarter, the fleece is 17lb.—In the south of Scotland the fleece of 15lb. produces only 4lb. of wool by reason of their custom of tarring them.—In Shetland the fleece is 2lb. of the finest wool, which is pulled, not shorn, and the mutton 3lb. per quarter. A mixture
of

of the latter breed, with our strong Cotswold sheep, would be very likely to restore the wool to its ancient excellence.

SAINFOIN.

The writers on agriculture give many cogent reasons for the cultivation of this plant ; it produces a larger crop than clover ; it does not hurt cattle when eaten green ; it makes better hay ; it continues four times longer in the ground, and it will grow on land that will bear no other crop. The broadcast mode of sowing I believe is generally adopted, but sowing by a drill, is preferable, because when sown in this manner not only the weeds, but also the supernumerary plants can easily be removed. Besides, the plants themselves are more easily removed when in rows. In transplanting it is necessary to cut off great part of the long tap-root ; this will prevent it from striking very deep into the soil, and make it push out large roots in a sloping direction from the cut end of the tap-root.

Sainfoin managed in this way will thrive even on shallow land that has a wet bottom, if it be not overstocked with plants. It is fine food for milch cows ; insomuch that it enables them to give nearly double the milk produced by any other food. Our butter is beautiful in colour and finely flavoured. A wet clay soil will not agree with this plant. The dryness of land is of more

E

consequence

consequence than the richness of it for the nourishment of sainfoin. The finer the land is made for the reception of it the better.—Much depends upon the depth which this feed is sown:—If it be buried more than one inch deep it will seldom grow, and if left uncovered it will push out its roots above ground and these will be killed by the air. March and the beginning of April are the best seasons for sowing it, as the severity of winter and the drought of summer are equally unfavourable to the young plants. A bushel of seed is said to be enough sown broadcast; or half that quantity in drills for an acre. The drills should be thirty inches apart to admit of horse-hoeing between them.—When the plants stand single and have room to spread, they produce the greatest quantity of herbage, and the seed ripens best. A single plant will often produce half a pound of hay when dry; on rich land this plant will yield two good crops in a year, with a moderate share of culture.—If cut before it blooms it will yield a second crop the same season. In a rainy season it is better to let the crop stand for seed, as that will amply repay the loss of the hay.—It will bring a good price, and a peck of it will go as far as a peck and a half of oats for horses.

TURNIPS.

The season of sowing should be regulated by the time intended for feeding.—Where intended for feeding in November, December
January,

January, and February, the seed ought to be sown from the 1st to the 20th of June. Where the feeding is intended to be carried on to March, April, and May, the seed must not be sown till the end of July. The effect of too early sowing is that the plant flowers, and runs fast to seed that summer. If sown too late it gives no fruit, and therefore affords food only from the leaves. The safest way is to sow thick, if the black fly ravages the field a sufficient crop is left; it protects against drought and establishes them before it is necessary to thin them. Besides a profitable crop, it makes a complete fallow; therefore sow in rows at three feet, that there may be horse-hoeing between. The Norfolk seed is most approved.

BARLEY.

Extraordinary crops of barley frequently succeed turnips, especially when fed off the land. Were only half the quantity sown equally, the produce would be greater, and the corn be less liable to lodge.

LUCERNE.

Is rarely seen in this district. Many farmers to whom I have mentioned it say, their soil is not sufficiently rich for it, but an experiment that I have made on harsh clay land proves the contrary, and shews that this plant with care might be cultivated with us to great advantage.

CROSS

CROSS PLOUGHING.

Though rarely adopted, it should seem would prove very beneficial; the weeds by this mode would be disengaged from the earth and easily cleared away by the drag or a cleaning harrow. The present practice does not effectually extirpate weeds, and strengthens those that are left.

WHEAT.

Seed from a distant district is found to produce abundant crops, when well chosen, and properly cultivated. One third of the wheat sown in most other districts is sown by the Cotswold Farmers. In August the ordinary quantity is 6 pecks about 14 gallons; in September 2 bushels 9 gallons and a half each. But it has been found that one bushel sown in August, provided the land be clean and in heart, is abundantly sufficient. The produce is 12 to 20 bushels an acre. Two quarters an acre is deemed the average produce.

Marshall's Rural Economy.

PEASE.

PEASE.

A leguminous crop, is proper to intervene between two culmiferous crops, less for the profit of a pease crop, than for ameliorating the ground.

Gentleman Farmer, p. 90.

FOLD YARDS.

The rule laid down in the *Gentleman Farmer* on this head seems perfectly proper. "If the soil on which the dunghill stands be porous, let it be paved to prevent the sap from sinking into the ground. If moisture superabound it may be led off by a small gutter to impregnate a quantity of rich mould laid down to receive it, which will make it equal to good dung."

FOLDING SHEEP.

Sheep are commonly folded upon turnips, whereby the land is greatly fertilized.

THE CHAIN PLOUGH.

Seems to be the best designed that is in use, and this, with a trivial improvement, might be worked with more ease and utility; if the
extremity

extremity of the chain, instead of being fixed before the coulter, was fastened within the moulding-board, the draught would apply more immediately to the centre, consequently less power would work the plough, and with greater ease to the holder of it.

TREE SEEDS.

Sowing them with corn seems to be good husbandry, as it prevents the vermin from destroying the trees as they come out of the ground. The stubble also shelters them, and hinders the frost from throwing them out of the ground; When the oats are cut the labourers should be careful not to injure the trees. The oats should be cut high to prevent the seedling plants from being topped, the long stubble will keep the trees warm all the winter.

Kennedy, vol. i. p. 34.

DRAINS.

In Mr. Anderson's essays on agriculture this subject is copiously, and scientifically treated, from thence we learn that every foil of a soft and porous texture that lies upon a bed of hard clay, whatever its situation in other respects may be, will in some measure be subject to wetness. If it happens on inclined land, ditches across the declivity will intercept the water, and prevent the

the lower part of the field from damage. The recommendation of Mr. Anderson to be prepared with boring irons, ought to be accepted by all farmers whose lands are subject to damp, by these instruments they become acquainted with the strata of their own soil, and are able to apply the remedy with efficacious certainty.

WEEDS.

It would contribute much to the cleanliness and advantage of estates, if the various weeds growing upon the several boundaries were at stated times cut, burnt, and the ashes applied for manure.

ROADS.

If the statute labour was fairly executed our roads would be excellent. Much labour and expence might be saved if the form of roads was more attended to—the segment of a circle seems to be the only true form, the rain does not lodge upon it, and it adheres in this form with greater firmness.

LEASES.

Our Leases, so far as they come within the sphere of my knowledge, are plainly adapted to the common circumstances of
the

the taking ; and are equally framed to preserve the interests of the landlord, the tenant, and the community.

As a proof of it, I need only add that an action is rarely known to arise among us through the misunderstanding of parties upon the subject ; a draught of the proposed lease is generally submitted to the landlord and tenant for their correction previous to an ingrossment being prepared for them to execute.

POOR.

Whenever difficulties occur, a reference to first principles, with due deliberation, will disentangle all perplexity. The commentary of the late Judge Blackstone on the 43 Eliz. c. 2. (The foundation of the poor laws) admirably applies to this purpose. He says the two great objects of this statute seem to have been : 1. To relieve the impotent poor and them only. 2. To find employment for such as are able to work, and this principally by providing stocks of raw materials to be worked up at their separate homes. *Instead of accumulating all the poor in one common workhouse ;* a practice which puts the sober and diligent upon a level (in point of their earnings) with those who are dissolute and idle, depresses the laudable emulation of domestic industry and neatness, and destroys all endearing family connexions, the only felicity of the indigent. Whereas, if none were relieved
but

but those who are incapable to get their livings, and that in proportion to their incapacity ; if no children were removed from their parents but such as are brought up in rags and idleness ; and if every poor man and his family were regularly furnished with employment and allowed the whole profits of their labour, a spirit of busy cheerfulness would soon diffuse itself through every cottage, work would become easy and habitual, when absolutely necessary for daily subsistence, and the peasant would go through his task without a murmur, if assured that he and his children (when incapable of work through infancy, age, or infirmity) would then, and then only be entitled to support from his opulent neighbours.

DOGS.

The reproach of poaching ought not to be levelled at the honest labourers of this county.

Poachers are men of evil indolent habits, and are not numerous in this county, they are as much despised by the honest hard-working labourer as indolence itself. — The dogs kept by our labourers are generally of the cur kind, useful frequently in destroying vermin, but rarely of the kind for poaching.

F

I confess

I confess it would give me concern to see this living emblem of fidelity taken from that character whose honest unwearied services are so faithfully and so cheerfully devoted to society.— To these men too much praise cannot be given ; true to the interests of their employers, and peaceable to all around them, they offer up a silent sacrifice of attachment to their king, their constitution, and their country, more gratulatory than all the fulsome incense of adulation.

THE HARROW.

Is not so often applied to the breaking of clods as it ought to be, nor is the form of this implement adequate to the end for which it is used. The teeth being placed at considerable distances, and in right lines, leave many asperities untouched in going over the land, but if the position of the teeth were varied in every bar, so that upon an horizontal view of the harrow only very small interfices would appear ; work would much more effectually and easily be executed.

THE LABOURERS.

Of this county are a very deserving people. Their general habits of sobriety, fidelity, industry, and peaceable demeanour, cannot be surpassed, if equalled, throughout the kingdom.

MANURE.

MANURE.

Fertility might be considerably increased by the rich unctuous soil which the river leaves upon the ebb of every tide. Another good consequence would result from the application of this soil as a manure—The navigation of the river would be made more open, and shoals would be lessened, if not prevented.

COMMON WITHOUT STINT.

Though such common be claimed and allowed, yet in truth it is not founded in right. For the legal rule is, that a man shall be entitled to depasture no more stock upon a common in summer than he can support upon his own land in winter.

SOAPERS ASHES.

The efficacy of this manure I have effectually proved, inasmuch that land formerly in my possession upon which a quantity was thrown, now brings forth about one third more of grass, the quality of which is also much improved.

TITHES.

TITHES.

It is to be lamented that some certain rule is not laid down for the discharge of this just due, by which the animosity so frequently arising between the farmers and clergy might be precluded, and that habit of peace preserved, which is so absolutely necessary to their mutual happiness. Suffer me to suggest, that this rule might be obtained by causing a tithe-rent to issue out of every estate in a certain proportion to the annual value of the latter. The objection to the corn-rent would not apply here, as fluctuation would not often happen, and when it did, the tithe-rent might easily be raised and proportioned to the increased annual value of the estate out of which it must issue.

A LOAM INTERMIXED WITH STONES.

It has long been the practice to collect these stones into heaps upon the land, and the best farmers have deemed it good husbandry to break them into small pieces and return them to the soil. But more improved reflection causes this practice to decline, and seemingly with prudence, for these stones not only guard the roots of vegetation from extreme heat, but also form small cavities for air, and moisture, that give great succour in times of drought.

SMALL

SMALL FARMS.

Encourage industry, increase population, provide more extensively for arts and manufactures, and strengthen social order.—He to whom pure confidence is given will sacredly regard the trust. The ability to maintain a wife will induce him to seek one—a virtuous industrious family ensue. Habitations are increased, and the demand for the work of the industrious manufacturer. But above all, there is a gradation in rank supplied which adds to the beauty and firmness of our blessed constitution; at present the ascent from the labourer to the farmer is steep, and too frequently inaccessible.—The introduction of small farmers forms a step that easily leads to this height, and the pyramidal form, as Blackstone expresses it, of our happy society, is hereby preserved in its pristine perfection.

RICKS.

Grain is particularly well harvested, our ricks among the best husbandmen are patterns for the kingdom. They are generally circular, rising to a point at the top.

SOWING.

SOWING.

It is suggested, that when seed is sown in rain, a particular portion of the earth adheres to the grain, which preserves it, and causes speedy vegetation.

POPULATION.

How much more employment might still be found by parcelling out small farms, and how much illegitimate population prevented by this arrangement?

POOR WITHOUT SETTLEMENTS.

There is a particular description of poor persons in this kingdom who need the aid of the legislature to place them upon a level with our provincial poor; I mean such poor men and women who came from distant countries and have no settlements here. Many of this description have for a series of years maintained themselves by a constant course of honest industry, but being by age precluded from working, are exposed to beg for a subsistence. As the number is but few in any one place, it is submitted, that if they were enfranchised parishioners in those places where they could produce certificates of their honesty, industry, and sobriety, a distressed set of people would be made happy, and idleness, that foe to industry and order, be prevented.

HANTS.

HANTS.

PARING AND BURNING.

The opinion of the best husbandmen in the county of Gloucester is in favour of this practice, and it is justified by a certain criterion of its propriety—success.

HEREFORDSHIRE.

BEEES.

Should be kept wherever beans are grown, they would extract a treasure from these blossoms that would amply repay the care of these provident insects.

LIME.

“ The benefit of lime is found to be greater on sandy than on clayey soils.”

Has

Has this been ascertained by experiment? I take the liberty to suggest the question, as I entertain a different opinion. I conceive that the active power of lime is particularly adapted to benefit clayey soil, it disengages its particles, thereby obviating that tenacious tendency by which moisture is retained. This manure also counteracts the natural coldness of clayey soil, and is equally efficacious in cleansing, as it is for invigorating, land.

FENCES OF QUICK.

I have perceived an error in the management of these fences which ought to be guarded against. I mean the cutting the tops of the hedge, when it begins to support itself, with a view, I presume, to thicken it, but it has not this effect, and this practice prevents the lower part of the hedge from throwing out shoots. Lateral clippings thicken the fence both below and above.

FLASHING.

Is not so much practised as its utility and profit demand. The transverse form of this fence gives it a resistive power superiour to that in its perpendicular state, and it provides thorns either for fuel or mending other fences.

MISSLETOE.

MISSELTOE.

There is, it is apprehended, a particularly useful property in this plant, though hitherto it has been unexplored. Nature never works in vain, therefore the universality of this adjunct to the apple-tree either proclaims some inherent excellence in the former, or some essential service rendered by its growth to the latter. It is used in some places as food for pigs, and they are found to thrive upon it.

HUNTINGDON.

COURSE OF CROPS.

It would be well if every farmer kept a clear history of the course of his crops, agreeably to the accurate mode laid down by the reporter. It would be a certain guide for future practice, and contribute much to advance the truest interests of agriculture.

G

KENT.

KENT.

GAVELKIND TENURE.

There is much of equity and prudent policy observable in this tenure.—By providing alike for sons, be their number what they may, it preserves family friendship, and thereby promotes through all ranks that candour, love, and peaceful disposition, which form the firmest foundation of loyalty and fidelity.

POOR.

A very harsh custom prevails in many places of denying relief to poor persons possessed in their own right of a small dwelling until they surrender up their property. How much more humane and politic would it be to grant them the relief required (if necessary) without this requisition of their chief comfort. Such a charitable compliance with their requests would stimulate them to preserve what they had acquired by habits of industry, sobriety, and gratitude.

SEA WEED.

Would it not answer to burn the weed when dry, and to manure with the ashes produced from it?

THISTLES

THISTLES AND RUSHES.

If cut and burnt and the ashes strewed over the soil, much benefit would arise.

HOUSES OF INDUSTRY.

May lessen the poor rates, but many of them increase the misery of the poor.

LANCASHIRE.

The inscription in the shire hall at Lancaster, as given in the Universal Magazine, v. ix. p. 242. is happily applicable to the present reign.

“ Let judgment run down as water, and righteousness as a mighty stream.”

INCLOSING.

“ *Prevented by diversity of opinion or the clashing of different interests.*”

As

As diversity of opinion will of necessity arise in matters of this moment, the parties *interested* should not wish to decide, for prejudice may warp their judgment, but each should furnish fair facts according to their best apprehension to Parliament whose pure enlightened decision will secure the general good, and preserve provincial peace and satisfaction.

POTATOES.

A note in a common-place book that I wrote several years ago states, that John Hawkins, a dealer in slaves, got in 1565 the first potatoes for ship provisions from the inhabitants of Santa Fé in new Spain, he introduced the root into Ireland, whence it was farther propagated through all the northern parts of Europe.

MARLE.

"Continued a year or two upon lands before it is used."

Is not the fertilizing power of the marle lost in evaporation by this continued exposure?

LACTROMETER.

Many very valuable aids to medicine may be afforded by a course of experiments with this instrument; particularly in
consumptive

consumptive cases, by ascertaining what particular kind of food causes cows milk most nearly in specific gravity to approach to asses milk, so that an healing balm may be discovered, possibly equal in virtue to the latter, and more generally serviceable, because it may more easily, and in larger quantities be obtained.

MILK 1d. PER QUART FROM 1761 TO 1791.

To what cause is the unvaried price of this valuable article to be attributed? It is flattering to the modern improvement of meadow lands by the growth of various grasses formerly hardly known, and by the increased cultivation of pasture land in general, if this industry and attention may have effected so essential a benefit.

EMULATION AMONG THE FARMERS HOW TO BE KINDLED.

The torch of truth, in the anxiety of government for the public weal, has already illumined the minds of all, who think justly, that there can be no true interest uncombined with the general good.

QUICK FENCES.

The two rows that are used to form new fences should be planted so far apart as to admit of their being hoed and cleaned between, as the quick springs.

POTATOES.

POTATOES.

The tops of potatoes, particularly those of the early kind, might very profitably be cut and applied to the purpose of food for cattle.

BUILDINGS FOR GRAZING GROUNDS.

Where there are four grounds that meet by right angles, the most favourable scite for stalls or other buildings seems to be in the center, each field having then equal communication with them.

GRAZING INCLOSURES.

In the various accommodations for grazing, a free open range for cattle is a very essential requisite.

ROADS.

The particular pressure being on the center and sides of a road, it seems that in the course of time deep ruts and a washy way must be the consequence of failing to preserve the convexity of it.

RIDGES.

"Being wet for want of draining the furrows which are very deep, are full of rushes and other trumpery."

If the

If the descent of ridges was on each side so gentle, as for the slope to be hardly perceptible, it is submitted, that the draining furrows would answer equally well and prevent a great waste of land, as the draining furrow might at the end of the year be taken into the ridge, and a new one be formed beyond it.

This change of the draining furrow would keep the land clean and healthy and prevent waste.

LINCOLNSHIRE.

PARING AND BURNING.

If the turf is so impoverished as to be of no use externally, its property cannot be altered by ploughing it up and turning it into the soil ; on the contrary, the latter by this practice is burthened with an inert substance that cannot in any possible way aid subsequent vegetation. But very different is the effect produced by burning the turf.—Its sterility only vanishes by this operation, and in its stead leaves a fertilizing power that under the circumstances could only be obtained by such chemical process. This power united with the soil produces a principle of attraction that

that quickly furnishes a subtil nutriment much more advantageous than that which may have escaped in the original decomposition. In proportion as the staple is shallow the necessity seems to increase of vivifying it by this process.

HAY.

In catching weather large tarpaulins may be very effectually applied to secure the hay that is made from damage.

POPLARS.

May be cultivated to great advantage on lands that are near the Thames.

NORFOLK.

The distance from Thetford to Bungay being but thirty-two miles, it seems that a canal from one place to the other would essentially benefit the whole county.—As the streams of the Ouze and the Wavenny flow towards each other, so as to lessen the distance above stated some miles.—It is submitted, that this navigation might

might easily be effected. Commerce would then circulate round the whole county, and consequently throw its treasures into the heart of this and the neighbouring counties.

COMMONS.

Would not society be benefited by dividing these tracts, when inclosed, into small farms, and selecting for occupiers such labourers (having wives and families) who were most distinguished by habits of virtue and industry.

PLOUGHING.

It seems to me that the pabulum imbibed from the atmosphere is proportioned to the depth of the furrow, because a greater surface of earth is here exposed to its influence.—Plants also thrive best where they shoot with freedom, and this they do more effectually, it is submitted, when the soil is loosened to a due depth.

TURF PLOUGHED IN.

Seems to me rather an incumbrance to land than an assistant manure.

H

TURNIPS.

TURNIPS.

If the lands manured with lime for turnips are less subject to the ravages of the fly, may it not be inferred that dung is their principal attraction?

COPPICES.

The grand rule in the management of coppices seems to be that of laying out allotments annually, until a certain number are planted, by which means the time of growth will be proportioned to the quantity cut every year, and provision will be made for a renewal of the first allotment against the felling of the last portion.

ROADS.

If roads were repaired only in the particular parts where worn, much labour and expence would be saved; the sides of the ruts should be carefully beat down and levelled, and the part worn away in the center should be renovated as it decays.—After a road was well formed, if these particular rules were observed, it would be easily, and at a small expence, kept in repair.

POOR.

POOR.

The institution established at Newcastle by the keelmen who are in number several thousands, seems to be a measure worthy of adoption among the manufacturing poor throughout the kingdom.—They built by a collection amongst themselves an hospital for such among them as should be disabled by accident, or superannuated and past their labour.—This is supported by the voluntary constant contributions of those that are in health.—some such plan among the manufacturers would preserve industry and order among them, and contribute much to their comfort. It would also lessen the poor rates.

SHEEP.

“ Mr. Chambers has known 100 of them cured of the rot on limestone land not eaten too bare. — Their livers healed again.”

This information is very valuable, as it leads to the discovery of what may possibly prove the cure of this disease in other counties.—Water impregnated with the fixed air of lime and administered in proper quantity, with change of pasture so soon as the disease appeared, might remove it.

THE

THE CULTIVATOR.

Described in this report is upon a principle somewhat similar to the harrow that I have recommended in remarking on the Gloucestershire report. — If the clods pass through the interstices of one bar, yet are they certain of being broken by the teeth in one of the other bars.

OXFORD.

LABOURERS.

"Difficult task to excite in them a laudable spirit to exert themselves without applying for relief to the parish."

The virtuous energy of government, being acquainted with the difficulty, will by their judgement easily subdue it.

RUTLAND.

DRAINING.

In grounds where draining is required, would it not be well to form two ponds; one in the center of the declivity of the ground, and the other at the end of it? Into the first all the upper drains should run, and the lower drains into the other pond.

SHROPSHIRE.

SUFFOLK.
SHROPSHIRE.

TAR.

The following extract from the Universal Magazine, vol. xxi. p. 145. seems worthy of public attention. Over most of the coal-pits there lies a stratum of a blackish hard but very porous substance, containing great quantities of bitumen, which being ground to powder in the horse mills (such as are used in grinding flints to make glass) and well boiled in coppers of water, the earthy and gritty parts sink to the bottom, but on the surface swims the bituminous matter, which by evaporation is brought to the consistency of pitch; or, by the help of an oil distilled from the same stone and mixed with it, may be thinned to a sort of tar, and both substances serve particularly for caulking of ships as well as pitch or tar, but always keep black and soft, and might, as it is *imagined, be very serviceable against the worms so mischievous to our ships.*

SUFFOLK.

SUFFOLK.

OBLIQUE DRAINING.

By which mode several courses may flow through one drain ; but in the direct line it may happen that not one spring may be drained.

HOUSES OF INDUSTRY.

Would it not be better in other counties where the practice of building such houses hath not obtained, to build in various parts of each comfortable cottages for the poor ? The original expence would not be one half of that incident to these institutions ; and if such cottages were held by the constant tenure of virtue and industry, the poor around would be incited to emulate the examples of those to whom these dwellings were first allotted.

LABOURERS.

Independence is the fairest feature of our happy government. This principle is the source of its strength and virtue, and in proportion as it pervades all ranks, the order of each will be preserved,

preserved, and the happiness of all promoted.—Far, very far be it from my soul, to encourage that licentious levelling spirit, which dæmons only possess, and which if suffered to predominate would deluge the earth with blood.—But the warmth of this just detestation, must not divest Britons of that cool prudent precaution ; which viewing with gratitude to God the blessings of peace which we have internally so long enjoyed, will suggest to us the means by which they may be continued.

The happy secure elevation of our grand government will prevent the rising torrent of licentiousness from breaking over our happy shores.—Like the awful cliffs that preserve us from being overwhelmed by the ocean, the pre-eminent influence of government will protect us from that false principle of equality which confounds virtue with vice, and by destroying subordination, roots up the first principle of moral order.—This inherent virtue will also so far as merit may deserve, promote the comfort of the lower orders of society.—Persuaded of this, I beg leave to suggest, that if the plan mentioned in the previous remark were adopted, general satisfaction would be given to the poor, and that energetic spirit of independence be preserved, which is a grand bulwark of the nation. To be incited to labour to supply the wants of an endearing wife and family, is in itself a heartfelt comfort, but separation from them and compulsion to labour is surely an hardship. By the one practice population is increased, and the
native

native virtuous independence of the nation strengthened :—by the other mode conjugal, paternal, maternal, and filial rights are weakened, population decreased, and the boasted energy of the nation enervated.

EXPORTS.

It seems impolitic to suffer the exports to exceed the imports, as I believe it constantly enhances the price of articles at home, and also causes scarcity.

PONDS.

They should be so formed as to admit of the water being frequently, and with ease drawn off.—By this practice much useful manure would be obtained from the foil of ponds, and the water, by being less stagnant, would be more wholesome for cattle.

ROADS.

Justly do the reporters say that there can be but one solid plan for making roads, when that which they produce is so perfect as to unite the excellency of all, without the inconvenience belonging to any.

SUSSEX.

SUSSEX.

CHALK.

"Loses one fourth in the kiln."

Might it not answer to use the manure of chalk and stone without decomposing and destroying, what may be its most essential virtue, by fire? For instance, if it was in its natural state pulverized by large mills prepared for that purpose; would it not thus prepared prove more efficacious?

The experiment however is worth trying, whatever may be the effect of it.

"Smut in wheat hardly known."

May it not be attributed to the subsoil of chalk that obtains in this land.

WARWICKSHIRE.

ROADS.

The famous Roman road that passes through this county is (as are all other roads in this kingdom that were formed by the Romans) most worthy of imitation.

YORKSHIRE (WEST RIDING.)

LABOURERS.

It is proved by the accurate estimate in the report for Suffex that constant industry united to temperance and frugality will not provide the labourer and his family the common necessities of life.—As a small addition to their wages would preclude them from want, and is already allowed to them in some places, it is hoped that this practice (as it must be beneficial to the community) will be generally adopted.

WANT OF COTTAGES.

Increases illegitimate population.

STUBBLE.

"Left dry upon the fields will never ferment."

In Oxfordshire I have seen the stubble burnt, which seems a much better practice than ploughing it in, though not either to be imitated, as the present demand for straw seems to sanction the low cutting of the crop, as practised in East Lothian.

COVENANTS.

"Deemed obstacles to improvement."

If the

If the covenants are framed to secure the practice of the most approved course of husbandry, they do not bar the tenant from improvements.—It is in superiour cultivation of these crops that his skill is to appear, and he is rather aided, in my opinion, than fettered by having good rules to guide him.

SMALL FARMS.

It is more by that cool constant industry that is exercised to supply the wants of a wife and family that the state is benefited, than by those speculative characters who in the ardour of their desire to amass riches, too frequently forget the miseries of the humble husbandman by whose labours they are acquired.

WEEDS.

"To accumulate and rot them in the mixen."

Is it not better husbandry to burn the couch and weeds, and distribute the ashes upon the land?

SMALL FARMS.

"Were completely cultivated."

Here is a proof in point to the argument respecting small farms.

YORKSHIRE

YORKSHIRE (NORTH RIDING.)**SAINTFOIN.**

" Strikes principally below the field of ordinary vegetation."

Lucerne hath also this peculiar property. The tap roots of several plants about a twelvemonth's growth, were from 8 to 12 inches long when I transplanted them in 1794.

PARING AND BURNING.

" Reports differing as to the effect of this practice."

May be very fairly reconciled, when we consider that the difference upon the face of them may be the effect of the husbandry being good in the one case and bad in the other; possibly the unsuccessful experimentalist might have suffered fusion to proceed so far as to reduce the turf to a red powder, which circumstance alone would counteract the expected fertility.

LIME.

" Beneficial in improving crops."

And equally so in destroying the grubs and other insects that are so common in land wherein this cleansing manure is not used.

HORSES.

HORSES.

"One horse in the shafts, and two abreast before him."

The power of draught seems to be weakened in proportion to its distance from the weight, and is more effectually performed when the horses draw independently of each other; that is, without either being weakened by the friction of the others draught, which appears to be the case when they do not work in a right line to each other.

GUIDE POSTS.

Attention to these minutiae is a proof of civilization; and is more particularly conspicuous throughout the county of Suffolk than in any other county in the kingdom through which I have travelled.

YORKSHIRE (EAST RIDING.)

SHEEP.

Land having a subsoil of chalk seems generally to have this very useful quality of preserving sheep from the rot.

NETS.

NETS.

Both for oxen and horses to guard them from the flies should be provided by every farmer. The animals would then work with ease, and a number of poor children might be employed in the manufacture of these nets.

LABOURERS.

"Humane in a farmer to let out a cow to them."

Or suppose that the parish (wherein a labourer had given proof of his industry and virtue) were to give him a sum that would enable him to buy a cow.—This encouragement would strengthen his attachment to his duty, and comfort those under his wing, whom he is training to follow his example.

THE SCIENCE OF AGRICULTURE.

"The art of knowing and curing nature's defects."

It rather restrains art from deforming nature.—This science perceiveth order and perfect beauty and utility in every work of nature.—The defects complained of, originate in indolent ignorance, and are cured by the science of agriculture, which is founded on the pure unerring laws of nature.

FALLOWING.

FALLOWING.

The vegetative power of land is inexhaustible, even in fallow it nourisheth weeds.—Why then fail to introduce a crop that may ameliorate the soil and preserve the continuity of profitable vegetation.

CONTIGUITY OF MANURE.

That the union of various soils serves to promote the fertility of each other seems discoverable from their variety and contiguity throughout the kingdom.

FARMS.

As an advantage accrues to the large farmer by *inclosing*, so also does it to the small farmer. The *rule of right* proportions itself to every state, and gives to the occupier of 20l. a year, as much satisfaction as he derives from it who possesses 20,000l. per annum.

LABOURERS.

Activity is generally in a ratio to encouragement. The Norfolk labourer receives nearly one third per diem more than the Wiltshire labourer.

ABERDEENSHIRE.

ABERDEENSHIRE.

RIVER OVERFLOWING.

Might not the united efforts of the occupiers of these vales form at the expence only of trouble, an *embankment* that would effectually guard the fruits, of their industry? The tranquil course of the river seems to favour such a measure, and promise the easy execution of it.

COTTAGES SECURED TO THEIR INHABITANTS.

This security gives energy to industry, and promotes content, fidelity, and order, among all who are blessed with it.

SUBSTITUTION OF WEIGHT FOR MEASURE.

Such a law would be productive of very salutary consequences. Grain would then produce its intrinsic value, and the buyer and seller would be mutually relieved from that natural distrust which the variance of measures in different districts occasions.

ENCOURAGEMENT OF AGRICULTURE.

It is the character of our royal patron of agriculture to countenance the simplicity and grandeur of this science, by those practical

tical principles that contribute to promote each effect.—Happily for the united kingdom, this illustrious example equally incites the admiration and governs the practice of those who delight in promoting the general good. With them every communication from the respectable reporter must be favourably received.

OXEN.

They work better in collars and harness, similar to those used for horses, than in yokes. A team consisting of one horse in the shafts and four oxen thus harnessed will work with a power and tractability very nearly equal to horses.

STORES.

“ As to favour being shewn to Ireland in supplying salted stores.”

It is the nature of the British Parliament to promote the happiness and prosperity of its subjects in every dominion over which this power reigns. In the discharge of this grand duty some places by their locality seem to be more favoured than others, when in truth it is only because *the general good* is hereby more easily and securely promoted.—Ireland is so situated that the navy victualling there, particularly at the port of Cork, may immediately after proceed in a direct course to their various destinations over the Atlantic and the Mediterranean.—It is this situation that commands, not Parliament that gives, a monopoly in victualling

K

vessels

vessels bound over the said seas. Ships bound to the Baltic or the more northern parts of Europe might certainly be conveniently victualled at Aberdeen, but not so, it is submitted, unless the harbour was improved.

ARGYLL, and the Western Parts of INVERNNESS SHIRES.

SHEEP.

"Cured of the shag near Morvin by removing them to low pasture upon a lime rock."

Here is a direct proof of the salutary effect produced by the limestone, which seems to strengthen the propriety of administering lime water to sheep afflicted with the rot.

CANAL.

Nature seems to have plainly pointed out an improvement in the navigation from Ireland, and the western shores of Scotland to Germany, Norway, and the Baltic, by means of a canal for trading vessels, originating from the northern boundary of the Linnhe Loch, crossing Lochaber, falling into the Lochy, and then pursuing a direct line to Lochness, and so on to Inverness and the Murray Frith.—So aided by nature is this design, in the rectilinear position and extent of the lakes which would unite in it, that the length of the ground required to be cut for the

the

the canal would not, it is presumed, exceed fifteen miles. There may be provincial circumstances that render the execution of this design impracticable, but as the idea arose in the author's mind upon viewing the map of Scotland, and in feeling an anxious zeal for the prosperity of its inhabitants, he thinks it right to submit it to the public.

PEMBROKESHIRE.

SWARD HEDGES.

It is submitted, that the internal sides of these fences surrounding arable land might be turned to a very profitable purpose, by taking off the sward face of the fence and drilling in lines at stated distances, clover, vetches, or lucerne.

WAGGONS.

An improved waggon would greatly facilitate the purposes of its employ. It ought to hold nearly as much again as that now used.—The quantity then carried would preclude that unprofitable expedition which is now practised, for unprofitable it must ultimately be, when the cattle, by being worked beyond their strength, daily lose their flesh, and are by being overheated subjected to illness.

TURF

TURF BOGS.

A methodical course of cutting the turf out of these bogs would prepare a fine soil for plantations, and shelter them from the winds until they were sufficiently strong to resist their inclemency. I would recommend the turf to be dug out in squares, circles, or ellipses (according to the form and extent of the intended plantations) to the full depth of it, a drain should then be dug round the extremity of the soil, this would preserve the trees from wet, and their protection from the winds would be in proportion to the depth of the turf, or of the excavation.

LARGE STONES.

Certainly should not remain on land, they occupy space that ought to be filled with the crop, and also harbour worms and insects.

CANAL.

It appears to me that a canal, which would run from the Bristol channel into Milford-haven, near to Pembroke, would prove very beneficial to the southern part of this county. — The extent of such canal would not be more than four miles.

CARMAR-

CARMARTHENSHIRE.

PEAT.

Would not peat ashes prove a very valuable manure?

OX TEAM HARNESSSED.

If the additional work which they perform, and the ease with which the animal labours thus attired be estimated, the expence of equipment will be amply repaid.

TURF.

" Dug upon paying an acknowledgment to the lord of the soil."

If in addition to this acknowledgement the parties benefited were to stipulate to render the ashes to the lord of the manor, a valuable quantity of manure would be collected and applied to agricultural purposes, that is now disregarded and entirely useless.

EMBANKMENT.

" Slope of embankment against the sea at a pitch of forty-five degrees."

Should not the slope of the embankment be graduated by the height to which the water flows, so that a right line from its base upwards, may meet an horizontal line from the high water mark of equal extent?

CARDIGANSHIRE.

CARDIGANSHIRE.

FURZE PLANTED AT THE FOOT OF TURF FENCES.

This suggestion throws more light into my mind respecting the beneficial purposes to which the internal sides of these fences might be appropriated. Three lines in every fence might be formed with a sufficient base whereon grass seeds might be successfully cultivated.

CLYDESDALE.

FRUIT TREES.

New earth put round them strengthens the trees and renders them more productive.

SCOTCH KAIL.

Seems to be deserving of general attention for feeding of cattle. It is a very luxurious plant, grows quickly, is hardy, and furnishes food for cattle at a time when other green food is not often to be obtained.

CARSE OF GOWRIE.

ENGLISH BARLEY DID NOT ANSWER.

Most likely it was the produce of land equally rich as that upon which it was introduced; if so, much improvement could
not

not be expected, but grain obtained from poor land improves in quality upon a rich soil.

FENCES.

In many situations, and soils, it seems advisable to form the fence by digging a trench four feet deep and four feet wide, throwing the earth into a bank and planting quick on the top of it. This fence serves also as a drain to a considerable portion of the land.

BERWICK.

SELLING BY SAMPLE.

The mode of presenting the article for sale by the sample, seems to be the best adapted for the farmer's interest; as it saves the unnecessary expence of carriage and warehouse-room, which happens when the bulk is carried and not sold. It also establishes mutual confidence.

HEDGE-ROW TREES.

The *maple* is a good tree for this purpose, it grows well with quick, and it soon affords stakes which may be thinned without prejudice to the fence.

HUSBANDRY.

"Never to take two white crops without a green crop or fallow intervening."

There

There is a purity in this restriction which must make it acceptable to good husbandry in every county throughout the united kingdom.

ARTIFICERS.

" Ploughmen encouraged to learn artificers employ."

No saving that discourages population can be a national benefit.—And such a one it seems would produce this effect, which would lessen the number of useful artificers.

AGRICULTURE.

" Lord KAIMES' Treatise on Agriculture still the best we have."

This treatise is indeed a masterpiece ; framed upon the solid system of utility, unwarped by provincial prejudice, and adorned by true theory and perfect practice, it gives pure honour to the noble author's memory, and enlightens every country wherein it circulates.

CATTLE.

" Introducing cattle from other countries to improve the native breed."

Cattle in every district have some local excellence. This should be sought for, and when discovered, preserved in its greatest perfection ; resorting to distant countries for the means of improvement only in cases where the defect cannot be obviated at home.

The

"The settlers at Moss Flanders where 600 are cherished by the benevolence of Mr. and Mrs. Drummond."

These acts ascend to heaven and bring down upon the nation the blessings of plenty and peace.

NAIRN.

"The practicability of opening a communication to the western ocean at fort William by joining Lockness to Loch Evich, and that to Loch Lochy and thence to the sea, has been satisfactorily established."

As the author was totally unacquainted with the practicability of performing this measure, (otherwise than as reason suggested to him that it might be done) when he wrote his remark on this subject in the report for Argyll; it must be satisfactory to the advocates for the plan to be informed, that an individual, so far distant from the intended improvement, should, merely from an attentive view of the map of Scotland, have designed it in terms nearly similar to those stated by the reporter for this district.

HEDGES.

"Double rows of thorns do not thrive well, as their roots become too thick upon one another."

L

It is

It is submitted, that this mode answers well when the plants in each row are planted in a diagonal direction, the one to the other, and sufficient space left between to hoe them.

PEASE.

" Growing out of use as turnips are introduced."

Attention should be continued to this crop.—It is advantageous to preserve a change of ameliorating crops.—The haulm of this plant forms fine succulent food for cattle, and may be produced in great abundance if the drilling system was introduced so as to admit of the plants being properly hoed.

PLANTATIONS.

If farmers were incited to plant trees on the waste of the farms, by allowing them one half or two thirds of the timber produced, estates would be much improved, materials for implements always at hand, and the country be beautified and rendered more healthy.

DUMBARTON.

LIME.

" Spreads more equally when it is spread immediately after it falls to powder."

And is more pregnant with fertilizing power, than it would be, if suffered to lie unspread upon the land.

CENTRAL

CENTRAL HIGHLANDS.

" Slopes of hills more fertile towards the north than those in a southern aspect."

Superiority of soil will overcome the disadvantage of aspect, and it is submitted, that this superiority, and not the aspect, confers the fertility described.

TARRING SHEEP.

Does not this practice by partially closing the cutaneous pores of the animal render it more susceptible of cold in those parts of its frame that are not so defended ?

RENFREWSHIRE.

CARTS.

If carts should continue to be preferred to waggons, it is submitted, that it would be an improvement to add a wheel in the centre of the front of the cart so that the load might rest solely upon the wheel, the horse, being then unincumbered by the perpendicular pressure of the load, would with greater ease and power go through his work.

PLANTATIONS.

Bleakness of situation may easily be obviated so as to prevent tender trees from being injured, by planting those that are most hardy and native to the soil, in a defensive line, on the extremities of the plantations

ISLE

ISLE OF MAN.

POTATOES.

It is submitted, that the sandy soil, used upon the clay, as a manure, would produce abundant crops without any further aid.

"The Herring fishery occupies their attention when they should give it to their crops."

An axiom of the purest policy flows from this observation. Indefatigable improvement of the intrinsic blessings of our kingdom renders adventitious aid tributary to us, and not a serious grievance to us; if by unforeseen accident, it should for a time be withheld.

DRILLING.

In drilling, dung is much more providently used than in the broadcast mode of husbandry.—In the former its virtue is confined to the lines of earth producing vegetation, but in the latter by being spread equally over the surface it unnecessarily enriches some parts that are not occupied by vegetation.

"Fund for giving small premiums to tenants and expert servants."

Such an establishment would be productive of much good.—The prudent pursuit of the artists and mechanics professions leads them to progressive comfort.—Why should not equal virtue and industry procure the like reward to the labourer?

F I N I S.

B[⚔]L

